Youth Participatory Action Research: A Transformative Approach to Service-Learning

Jean J. Schensul and Marlene Berg

Institute for Community Research

This article describes a model of participatory action research and service-learning conducted with urban, high school African American, West Indian/Caribbean, and Puerto Rican/Latino youth and adult facilitators, in a nonclassroom setting, in a mid-sized northeastern city. Youth Participatory Action Research (YPAR) integrates critical theory, research paradigms that incorporate positionality, interactive ethnographic methods, and dialogic approaches to service-learning. It provides a context for examining questions related to instructional methods, reciprocal learning, information as service, and the nature and practice of service-learning as reproducing or transforming traditional structures of power and positionality. This case example, though it reflects work done with high school students, has implications for the ways both secondary and higher education can change to ensure service-learning programs that utilize research for social transformation.

When intellectuals not only reach outside of the university, but actually interact with the public beyond its walls, they overcome the ivory tower isolation that marks so much of current intellectual work. They create knowledge with those whom the knowledge serves ... Academics can reach these goals in two ways: service learning and activist research. (Cushman, 1999, p. 330)

The origins of 'service learning' in the U.S. are rooted in the social movements of the 1960s...In this earlier period, service-learning was not formalized as a teaching method but was, rather, a way for politically engaged professors to involve their students in activities associated with the Civil Rights and anti-war movements and with the War Poverty...more recently, 'service-learning' has lost this association with the leftist politics of the '60s and has become institutionalized as a pedagogy associated with a far vaguer notion of 'good citizenship.' (Hyatt, 2001, p. 8)

In ever-diversifying communities, it seems that the least desirable consequence of a service project would be perpetuating the further marginalization of people based on gender, race, sexual orientation, class or ethnicity. (Masucci & Renner. 2000)

Action research as service-learning is an activistoriented participatory approach to addressing social problems that utilizes ethnographic research methods together with the critical theories of anthropology, sociology, and education to involve community members in identifying, conducting research on, and working to resolve social problems that affect them, their peers and their communities. In this conception of action research as service-learning, anthropology creates the means for understanding issues from the community members' perspective, for offering an eco-critical structural perspective, and addressing the disparities in power between researchers and residents that can occur when bringing research or service-learning projects into the community.

The term "eco-critical" is drawn from two sources. The first is Bronfenbrenner's ecological theorizing (Bronfenbrenner, 1979; Bronfenbrenner & Crouter, 1983) that situates individuals in the context of components or levels of the social environment that interact with one another. These sectors can be disaggregated in various ways depending on one's theoretical or practical orientation, and may include influences that are supportive and nonsupportive, risk and protective, positive and negative, growth or suppressive. The second source derives from the critical theories embodied in the work of Paulo Freire (1981; 1987; 1998), Bourdieu & Passeron, (1977) Foucault (1977; 1982), and Gramsci, Hoare, and Nowell-Smith (1972) that call for analyzing power relations that subordinate individuals and groups and prevent them from achieving their goals. Eco-critical theory integrates an analysis of power relations and resistence into ecological analyses. Through the use of eco-critical theory and ethnographic research methods, community residents together with university-trained researchers question, investigate and act to shift the normalized unequal distribution of power and resources they encounter in their research. In this process of technology transfers and knowledge exchange (Aguilera,

1994; Porter & Monard, 2001; Schensul, Berg, & Sydlo, 2000), university-trained and community researchers can together achieve agency as individuals, community members, and researchers actively involved in addressing social injustices.

Until recently, anthropologists have expressed little interest in service-learning. This does not mean, however that anthropologists have avoided the application of anthropological (or other social science) theory and methods. Anthropologists have been involved in applied and activist research since the late 19th century. But, following a traditional pattern of expansion and contraction of interest (see Schensul & Schensul, 1978 for a review of this history) over the past two decades, many anthropology departments have moved away from empirical research methods and application, emphasizing critical theory and postmodern reflection on anthropology as representation. At the same time, however, other departments have shown interest in broadening their applied training and organized into a national consortium of applied programs. Departments such as the University of South Florida, University of Maryland, and University of Tennessee, Memphis, train students to conduct research and other activities useful to community organizations and groups, planners, and policy makers. Other departments, such as Wake Forest University, run undergraduate summer field schools with applied foci. Applied, communitybased, and activist research is not, however, thought of or described as service, and student internships are generally not viewed as servicelearning even though the intent is to teach students to make their research locally useful. We will return to this issue toward the end of the article.

As applied anthropologists, our consideration of service-learning in anthropology arises from a position of working in a community-based research organization with a social justice agenda. The Institute for Community Research (ICR) has been both anthropologically- and community-driven since 1987. In addition to utilizing the methods and theories of anthropology, it has also sought the research-based "services" of undergraduate and graduate anthropology students and faculty, as well as students from other social science disciplines.

In ICR's work, the links between anthropology and service-learning are most evident in youth-driven action research as a transformative educational strategy. Youth action research utilizes a vision of action research as service-learning in a way that makes anthropological theory and methods central. We have reconceptualized this action-research process that involves youth from marginalized communities in an ethnographically-based inquiry

process to transform traditional power structures (Fals Borda, 1979; Greenwood & Levin, 1998; Schensul & Schensul, 1978) as "community service" or, more specifically, "critical community service," as described by Rhoads (1997). In this paper, a case example, based on a youth-driven action research model illustrates how action research provides a service-learning experience for urban African American and Latino high school youth that enables them to analyze critically their own positionality, and at the same time to mobilize social and political resources to transform themselves, their communities, and the gender/power/race/class structures that confine them. The article concludes by revisiting the question of why there is a continuing disconnect between anthropology and service-learning, and whether connecting them benefits or detracts from either field.

Service Learning: A Brief Analysis and History

Service-learning programs involve college undergraduates and K-12 students in a community-based learning exchange in which they can make a social contribution (provide a service) and reflect on their experiences, roles, and responsibilities as members of a civic society (Bonsall, Harris, & Marczak, 2002; Ward & Wolf-Wendel, 2000). Research on servicelearning situates learning through service in public education (Carver, 1997), civic engagement (Hepburn, 1997; Toole, 2002) and personal growth through reflection on learning (Dunlap, 1998; Eyler, 2002). Components of service-learning generally include preparation, action, reflection and demonstration (Burns, 1998; Pritchard, 2002), curriculum development, and evaluation (Schumer, 2002; Schumer, Burkas, & Murphy, 1992).

Some argue that service-learning can be viewed as an important element in a conservative national agenda that substitutes volunteerism for entitlements and other publicly-supported service programs (Ferrari & Jason, 1996; Hyatt, 2001; Morgan & Streb, 2001). But others support increased awareness of racial/ethnic, class and power differentials between those "serving" and those "served" (Green, 2001). Overcoming barriers separating privileged students and marginalized communities requires critical analysis of privilege, power differentials, hegemonic structures, and structurally-rooted resource disparities (Takacs, 2003). These abstractions must be confronted in field settings where projects are directed toward community-defined social change and participants are empowered to teach and learn together across long-standing social, political, and economic barriers (Berg & Schensul, 2004; Singer, 2003; Simonelli, Roberts, & Tice, 1998). These writers reflect a critical humanist, or critical structuralist positionality, or sometimes both (Taylor, Tisdell, & Hanley, 2000; Varlotta, 1997).

Masucci and Renner (2000), service-learning activists, argue that an explicit goal of service-learning is to reflect upon and address power, knowledge, and other resource differentials. They cite four fundamental steps different from those usually cited in service-learning literature: (1) pre-reflection (or consideration of positionality), (2) theory (theories of racial, ethic, and class difference, disparities, and power differentials, (3) action (structural transformation), and (4) reflection (personal transformation (p. 38). This social justice model is a definite improvement over general service-learning models, but does not include research. Porpora (1999), on the other hand, explicitly integrates research and service-learning:

As a form of service-learning, action research is a way of achieving an even higher synthesis, a way of uniting all three academic functions: service, teaching, and scholarship. Whereas the service-learning movement promotes community service as a form of teaching, the action research movement promotes scholarly research as a form of community service. (p. 121)

Action Research in Anthropology

Action research in Anthropology has a 65 year history, beginning with the efforts of Sol Tax's students to develop useful research on the Fox Indian Reservation together with the Fox (Tax, 1958). Many of Tax's students went on to utilize research for advocacy purposes (Peattie, 1968). In response to the radical social changes transforming the American urban landscape in the 1960s, some anthropologists joined forces with advocacy organizations and marginalized communities (African Americans, Mexican American men and women, Puerto Ricans, older adults, farmworkers, and Lesbian and Gay groups) using the tools of research to partner with them as they moved from the margins to the center politically, economically, and socially (Barger & Reza, 1989; Schensul & Schensul, 1978). The work of anthropologists in relation to these movements are recorded in articles and book chapters on advocacy and anthropology, or anthropology and social change (see Singer, 1994; Stull & Schensul, 1987; van Willigen, 1993) and in books by sympathetic sociologists and educators (Foot Whyte, 1991; Greenwood & Levin, 1998; Stringer, 1996). Approaches developed by social scientists or educators in Latin America (Fals Borda, 1979; Freire, 1995) provide theoretical and curricular guidance to advocacy-oriented anthropologists in the United States and Canada.

In the past decade, Canadian government programs and the U.S. Centers for Disease Control have supported the work of anthropologists partnering with First Nations, fishing cooperatives, HIV alliances, and reproductive health initiatives. Especially in the case of partnerships with First Nation or Indian tribes and reservations, partnership is specified through written agreements and in at least several cases, tribes have established codes of ethics and Institutional Review Boards (IRBs) through which anthropological research is reviewed before it is implemented. Many more examples have been described in the journal, Practicing Anthropology, over the past 25 years. Two meetings of the Society for Applied Anthropology (1999 and 2004) have been devoted to the theme of anthropology and advocacy, linking field research to social action efforts in many sectors. Most of the work reflected in these examples involves collaborations between members of the target population and anthropologists to achieve stated community goals for ensuring voice, agency, and economic and political empowerment.

In addition to interactive research methodologies, anthropology's contributions to these approaches include a relativist perspective; the importance of an "emic perspective" or understanding issues from the point of view of "the other" (Pelto & Pelto, 1978); an ecological perspective; and critical ethnography which integrates self-reflection with reflection on the dialectical relationship between structural/historical forces and human agency (Anderson, 1989; Fals Borda, 1979; Park, Brydon-Miller, Hall, & Jackson, 1993). This combination of elements, which we refer to as critical participatory action research (PAR), is central to our discussion of anthropology and service-learning.

Critical PAR and Service-Learning

Critical PAR can utilize any one or all of four main research paradigms: positivist/structuralist (understanding and maintaining existing order), critical/structuralist (critiquing and transforming the existing order) interpretive/postmodern (understanding individual's situation in existing order without trying to change it), and critical/humanist (transforming through understanding the individual's notion of self and power situation) (Burrell, 1988; Deetz, 1996). These paradigms are not mutually exclusive, and contemporary students of the epistemology of science suggest that projects can be framed as multiparadigmatic rather than nested in a single paradigm (Gioia & Pitre, 1990; Hassard, 1991; LeCompte & Schensul, 1999; Lewis &

Table 1
Service Learning and Social Science Paradigms

Steps in Service-Learning	Scientific/Theoretical Positionality				
	Positivist/ Structuralist	Interpretist/ Postmodern	Critical Structuralist	Critical Humanist	
Pre reflection	Research model KABP	Meaning systems	Power structures	Person and power	
Theory	Externally driven; deductive focus on factors driving participant behavior	Respondent driven inductive/deductive, structural factors shaping meaning	Externally driven, focus on framing power differentials	Respondent driven, inductive/deductive focus on individual empowerment	
Action	Any outcome	Disparities in shared meanings	Constant resistance; mobilization against structures sustaining disparities	Individual actions of resistance that confront structural disparities	
Reflection	On topic, target experience	On personal experience and learning	On structures that create disparities and ways to resist	On personal empowerment supporting resistance	

Grimes, 1999). Self-conscious selection of paradigm(s) involves assessing positionality of all of the research partners. Masucci and Renner (2000) integrate positionality and paradigm in the notions of pre-reflection and theory. If we interface these positional paradigms with steps to critical service-learning outlined by Masucci and Renner, and Taylor, Tisdell, and Hanley (2000) as guides, we emerge with an integrated framework for considering the place of PAR as service-learning (see Table1).

By linking service-learning and critical PAR we introduce several important elements. First the process is transformative—that is, it is designed to bring about changes in the relationship between individual, groups, and at the community levels that resist, reduce, or eliminate differences stemming from structural and social disparities, rather than reproducing them (Freire, 1981, 1998; Freire & Macedo, 1987; Giroux, 1983; Hooks, 1994). Second, it is participatory-individuals directly affected by the issue are actively engaged in the research process. Third, it is (broadly defined) "science based," using formal social science research methodology linked to research paradigms (Schensul, Berg, & Brase, 2002). Fourth, it is discipline-connected—these methods can be directly linked to academic disciplines—literacy, math, science, and social studies or their post-secondary education equivalents (Billig, 2000; Brigman & Molina, 1999). Lastly, it uses interactive, face-toface, in-situ ethnographic methods that reverse established power structures by framing the research process as highlighting researcher voice in relation to respondent (Berg & Schensul, 2004).

These ethnographic research methods—including observation, interviewing, elicitation techniques such as pile sorting and consensus modeling, ethnographic surveys, various forms of social and geographic mapping, and photographic and film or video-based research—offer an explicit set of methods and skills for carrying out critical PAR.

We next describe a case study of critical PAR for service-learning conducted through the Institute for Community Research with high school students from urban neighborhoods in Hartford. Hartford is a poor city of about 120,000 residents, in a wealthy state. Over the past 30 years, its neighborhoods have become ethnically segregated and marginalized from economic and other developments that politicians, institutions, business leaders, and developers have planned. High school students in the work we describe are generally average or below in educational performance, and come from primarily low-income and working-class backgrounds. They include both males and females, and are of diverse ethnic backgrounds, predominantly African American, West Indian, and Puerto Rican.

The Organizational Base: The Institute for Community Research

The Institute for Community Research (ICR) is a community-based research organization located in Hartford, with projects and programs in Connecticut and other locations in the United States, India, and China. ICR's mission is to integrate research with community partnerships to reverse inequities and promote justice in a diverse multicultural world

(www.incommunityresearch.org).

Studies conducted through ICR and with various forms of community and institutional partnerships over the past 15 years have utilized qualitative and quantitative research methods, and various innovative ways of integrating into research visual and material cultural components, exhibits, and other forms of public programming (Schensul, 2001; Schensul & Schensul, 1992). Issues addressed through ICR research must meet a number of criteria: a) community relevance, b) community partnerships; c) critical inquiry; d) fundability; and e) ways of confronting and addressing health, cultural, and other inequities. ICR research partnerships include basic and intervention research in communities, schools, cultural institutions, and other public settings. These partnerships always involve "affected populations"—teachers, students, parents, community residents, disenfranchised or marginalized artists, minority older adults, urban youth of color, and LGBTQ adults and youth.

Since 1987, ICR has made a major investment in using ethnographic research methods to train community residents of all ages to conduct research on issues that affect them, and—through both the process and products—to reverse existing structures

of power and influence and bring about transformational change in themselves and their communities. Here we concentrate on the main components of a 15 year program of PAR training high school (and middle school) urban youth. This program has been funded by multiple sources, and has developed over the years (Berg & Schensul, 2004; Nastasi & Berg, 1999; Schensul & Schensul, 1992). Most of our PAR work with youth has taken place out of school, where participants are free from institutional constraints that might limit their inquiry (Berg, Owens, & Schensul, 2002; Schensul, 1998; 1998-99), However, there are instances in which after-school work has been linked to in-classroom PAR, or where teachers have been involved in learning and initiating PAR with students in their classrooms for purposes of school change. The program empowers youth, by enabling them to give voice to their views and concerns through their research with peers. The "service" dimension of the program focuses on youth researchers' use of this information with their peers and in their communities to bring about transformational thinking and social change (structural positivism and critical structuralism). We now turn to the components of Youth PAR at ICR, showing how they

Table 2
Service-Learning for Action Research Components and Research Paradigms

SL/YPAR Components	Paradigms and Positionality				
	Positivist/ Structuralist	Interpretist/ Postmodern	Critical Structuralist	Critical Humanist	
Pre-reflection					
Power/gender/ethnicity		•	•	•	
Identity/gender		•	•	•	
Intelligences		•	•	•	
Theory	_		_	_	
Eco-critical modeling	•	•	•	•	
Mock court		•	•		
Methods			_		
Topic identification		•	•	_	
Modeling	•	•	•	•	
Observation	•	•	•	•	
Interviewing	_	•		•	
Social Mapping	•	•		•	
Elicitation Photodocumentation					
	•			•	
Survey Action					
Interactive dissemination				•	
Community education					
Eco-critical programs					
Advocacy for policy					
change					
Reflection	•	•	•	•	
Personal learning	_		•	•	
Transformational growth					
Resistance					

link research positionality with critical transformation and service-learning.

Components of Youth PAR

The core components of the youth PAR experience at ICR are operationalized through the Summer Youth Research Institute (SYRI) and subsequent activities designed either to utilize results for transformative change or diffuse the process to other settings. We will concentrate on the SYRI and its sequenced activities to transform research results into action as a form of community service. The activities, instructional methods, and research protocols used in the SYRI are designed to be conceptually critical and structurally transformative, as research empowers youth to raise questions about adult beliefs, decisions, and actions. SYRI youth, with the help of adult facilitation, negotiate and decide upon research topics central to their lives, design and implement research projects on these issues, and present the results of their research studies to the community in an interactive forum. SYRI is a developmentally and culturally appropriate educational program with components focused on identity formation (ethnic, gender, sexual preference), personal capacities, work and learning skills, research skills, and action strategies that support civic engagement, emphasize the civic right to critique, and are youth appropriate.

The first SYRI was held in 1997 with funding for 12 youth researchers. Since 1998, 30-45 urban multiethnic high school students have been hired each summer as youth researchers to participate in the six to seven week program. Multiple sources of funding have made it possible to retain 30 or more youth for up to 15 hours a week over the course of the school to utilize their research results to develop community education, prevention, action programming, interactive dissemination activities, educational films, and presentations to policymakers to promote policy changes. To describe the SYRI and subsequent action strategies we integrate program components with Masucci and Renner's (2000) four fundamental service-learning steps: pre-reflection, theory, action, and reflection (see Table 2). We add a fifth component: participatory action research.

Pre-Reflection

In youth PAR, pre-reflection allows young people to explore their growing sense of self in a safe environment and learn about the social dynamics and structures that promote certain identities and stereotypes, and stigmatize or marginalize others. Since Youth PAR is group work, youth must learn to negotiate differences of opinion, come to consensus, understand differences in approach and learning style, and learn

about and appreciate their own and others' complex social and personal identities. Hired as paid youth researchers, participants undergo a series of team building exercises that enable them to situate themselves, examine their identities, recognize and understand and apply the concept [mb'1] of multiple intelligences, and learn how to appreciate and negotiate differences. Youth also explore the structural factors that reduce educational quality, produce gaps in recreational facilities, result in harassment of young people of color, contribute to unhealthy urban environments, and promote competition among ethnic groups for scarce resources. They learn that generating social capital is the first step in bringing about structural changes that remedy these problems. Giving young people the opportunity of knowing self, seeking connections, grounding in context, and focusing on fundamental human needs is one of youth PAR's basic philosophies (Fals Borda & Rahman, 1991).

Theory

Eco-critical social science theory drives youth PAR and the SYRI. Two exercises expose youth to eco-critical theory. The first exercise involves youth in one or more games that require them first individually, and next in a negotiated group activity, to identify the systems that they perceive to constitute the concentric circles in an ecological model, and within these to identify the sources of power, and the risk and protective factors at the individual and community level that influence them. The second exercise engages youth in a "mock court" in which they are presented with a complex social problem-generally based on a recent incident involving youth their age in the community. The problem is presented in the form of a narrative. In a jury trial analogue, students are divided into small groups. Each group represents a perspective portrayed by one of the characters in the narrative. The groups are asked to deconstruct the situation from the point of view of their character and generate an argument supporting what they believe caused the problem. A jury of their peers decides which of the groups/characters is right. The jury is then assisted to come to the conclusion that (a) every one of the characters played a role in creating the problem—i.e., it is systemic; (b) personal, group and structural factors play a role in generating the problem—i.e., it is multilevel; (c) more information is needed to understand the complexities of the problem more deeply—i.e., research, not individual opinions, is important to "get closer to the truth" (Schensul, 2004; Sydlo et al., 2000).

Participatory Action Research Methods

Few urban youth receive formal training in sci-

entific research methods. Even for those students who have had some exposure to science and to scientific research methods, research means searching secondary library and internet sources or conducting laboratory experiments. Youth PAR introduces youth to social science by utilizing face-to-face interactive group research methods that reverse hierarchies of power by placing youth researchers in positions of authority with respect to adults from whom they collect information. At the same time, Youth PAR augments participant's voice and their leadership capacity by demonstrating their ability to devise an important project, collect data from other youth and adults, and use it for social change purposes. Methods consist of topic identification, theoretical modeling and hypothesis construction, study design, selection and implementation of data collection techniques in association with the model, data management, analysis, interpretation, multidimensional presentation to a public audience, and integration with various forms of transformative action in dialogue with youth and adults (Berg & Owens, 2000; Sydlo et al., 2000). Often the actions chosen include a continuing data-collection component. One of the most important differences between this approach and positivist social science is it utilizes group instructional techniques to build group identity, a group project, and coordinated action.

Topic Identification and Modeling. With help from facilitators, youth identify a significant problem affecting youth in their community. The group process involves negotiating to consensus a specific study topic through freelisting, discussion, and prioritization (Schensul, 1998-99). This effort challenges participants to compare, contrast, find commonalities among issues, consolidate and resolve conflicting opinions. The outcome is the dependent variable domain (the research problem domain) for the study model.1 Among the topics selected are drug use, dropping out of school, early sexual debut, teen pregnancy, suicidal ideation, stress, violence, gaps in mental health services, sexual harassment, drug use, restrictive school rules, discrimination against sexual minority youth of color, police harassment, and racism in schools. One successful strategy for achieving consensus on the topic has been to help youth to link "topics" and show them how topics can be modeled so that those not chosen as the "problem" or dependent variable domain can be included as predictors or mediators. In this way no strongly-held ideas are rejected, and most topics or domains that youth select can be included in a project. This procedure avoids hurt feelings and unnecessary alienation.

Modeling and Hypothesis Generation. Horizontal

and vertical modeling are next steps. First youth identify and discuss factors they believe are associated with or predict their chosen problem. They generate hypotheses linking these predictors with the dependent variable domain. In the discussion they sort out predictors, mediators, and consequences and the relationships among domains. Youth are encouraged to identify predictors and consequences that operate on the "community" (neighborhood, media, policy) level as well as the individual (personal, peer and family) level. This ecological approach requires them to consider structural as well as social and psychological factors that account for the "problem." Once having established the primary theoretical model (major independent, mediating, and outcome variable domains), they deconstruct each domain in a process referred to as vertical modeling. Vertical modeling calls for identifying and analyzing the constituent components in each domain. The resulting model and taxonomies guide data collection, and provide the basis for generating specific hypotheses that can be tested using survey methods.

Data Collection Techniques. The Youth PAR curriculum includes data collection techniques that require either direct observation in field settings or methods that require face-to-face interaction and dialogue with other youth or adults. Techniques and approaches include in-depth interviewing individuals or groups (focused group interviewing), photographic documentation and visual analysis, various forms of social, spatial and cognitive mapping, pilesorting and other approaches to eliciting cultural level data, and survey research. Facilitators and senior youth researchers introduce new participants to these approaches to data collection and the array of possible action strategies available to them, through learning stations. At these stations, new youth have opportunities to try out each data collection technique, produce a small amount of data and discuss the process. Engaging with methods in small groups introduces youth to group inquiry, essential to any PAR experience. At the same time, facilitators can help youth work on their communication skills, and learn to work in mutually supportive teams, skills that are required to use research for change. Youth also learn how each method can be a tool used to raise questions and obtain information from people that have power over their lives. They discover that the data collection process is as important as the data produced, especially when it allows them to express their ideas, and ask their own questions, thus strengthening voice.

Most of these ethnographic research methods are interpretist, designed to help youth to gain understanding of meanings, values, and beliefs associated with specific behaviors or situations in which the youth are interested. They require a relativistic and dialogic approach in which youth listen to, engage with, and must resolve through reflection and analysis multiple, alternative perspectives. A self-administered survey is always part of the data collection process for several reasons. First, creating a survey requires deconstructing the research model and formulating hypotheses to test the model. Second, survey administration cannot be completed without an IRB review. Youth involved in survey construction thus learn about research ethics and the protection of human subjects. They must also enter survey data and manipulate it, which requires learning SPSS, and understanding frequencies, percentages, charts, and correlations, all skills they often may not have developed at school. Surveys also produce variations in response, contradicting stereotyped beliefs that "all peers think alike." The positivist paradigm guides the survey component of the research, but the fact that it tests a theoretical model that youth generate themselves-based on their own understanding of an issue central to their lives, with social and contextual as well as individual correlates-situates it in the critical humanist paradigm at the same time.

Analysis and Interpretation. Once the data are collected, youth work in teams to enter or otherwise organize materials, transcribe interviews, and interpret results, by model domain, and then by linking results with their dependent variable. Always with the help of adult facilitators, they then organize an event that marks the end of the first phase of their work: an installation of their work in the ICR gallery, including posters that triangulate data by domain, photographs, maps, displays of elicitation data results, and other products for example drug refuse (stamped bags and small empty vials used to sell drugs, fliers or other materials advertising the use of ecstasy, representations of stressful activities or events, etc.). During the presentation youth reflect on the results and their own learning experiences, and suggest directions they feel are important for bringing about eco-critical or transformational change. They then dialogue with the audience about these directions and take other suggestions for change.

Action

Youth learn about a wide variety of possible approaches to action early in the program, including community education, different forms of advocacy (from organizing, marching, and demonstrating, to educating legislators), preventive interventions, and use of the media. During the year, they return in small groups to work on one or another approach,

culminating with a defined process and product or outcome (service). Actions have included community education, public service announcements, presentations to legislators on mental health, reproductive health, and other topics, and advocacy for youth programs, recess, and other rights. Measuring the effect of this work on structural transformations is difficult unless youth take on specific challenges in school environments, for example preserving recess or promoting earlier introduction of STDS and HIV education in high school. What is important is not whether they can accomplish transformations, but whether they learn to use the results of their work, and the communications skills they have acquired to influence those who hold power over their lives.

Reflection

Critical reflection is ongoing throughout the program and built into numerous activities in various formats. It takes place formally through a focus group at the end of the SYRI, and at various points during the period of action, preparation, and implementation. We have already noted that the elements of reflection are personal growth and transformation, group process (central to constructivist dialogue), and transformative action.

Youth PAR Teaching/Learning Process

Transformative pedagogy requires instructor capacity to understand, articulate, and facilitate a critique of hegemonic structures and ideas. Facilitators, drawn from diverse ethnic backgrounds and experiences that match or resemble those of the youth in the program, receive extensive training that models the process for youth. Instruction is guided by cooperative education instructional techniques that represent an operationalization of social construction theory. A constructivist approach to education engages students in constructing knowledge by exposing them to information, experience, and guided comparison/ contrast, analysis and synthesis, and practice. Coconstruction of knowledge engages groups of learners in producing authentically-embedded knowledge and norms together. Multiple perspective taking, challenging facilitator or other forms of hegemony, and cognitive conflict are used to move toward constructed rather than imposed consensus.

The action research approach calls for students to transform their information and the social networks they have built throughout the data collection process into short- and long-range plans for action designed to improve the quality of life in school and community settings. Planning and carrying out an action plan calls for additional measurable skills including collaborative planning,

Table 3
Youth Participatory Action Research/Service-Learning Skills

Social Competencies Negotiating ideas Bridging across differences Identifying and resolving conflicts Working in teams (defining and carrying out roles and responsibilities) Addressing stigma and discrimination* Integrating stigmatized individuals or groups into activities, programs, etc.	Critical Thinking, Critical Analysis, and Problem Solving Skills Problem identification Steps in problem analysis Critical analysis of alternative solutions Recognition of information adequacy Identification of structural factors impeding personal and group capacity to grow, respond, and act
Civic Competencies Recognizing and analyzing community problems Identifying community resources Taking ownership for finding solutions Gaining political visibility Learning and acting on models of social change Taking responsibility for recognizing and addressing social, political and economic inequities	Educational Competencies: Literacy skills (recording and writing interviews) Reading comprehension (reviewing literature, seeking references) Math skills (computation, quantitative data entry and analysis, graphs, charts, and other forms of mathematical presentations) Social Studies skills (identifying and documenting intragroup cultural variations, discovering power structures, learning physical and social geography) Science skills (learning multiple paradigms for scientific thinking; learning eco-critical perspective)
Cognitive Social Intra-group Competencies Idea presentation Idea negotiation Reciprocal "sense-making" Idea consensus Argued idea difference	Public Communication Skills Developing a logical argument Producing a visual/oral presentation Speaking to an audience of adults and peers Responding to unanticipated questions Confronting structural inequities, stigma, and discrimination

*Italicized notes refer to transformational additions to basic service-learning skills.

mobilization of social, cultural, and material resources, and defining and achieving measurable benchmarks for change.

Facilitators guide youth to deconstruct domains, understand and utilize research methods, and interpret data without imposing ideas and values on them through effectively using four key or instructional techniques: modeling the skill, scaffolding or guiding youth to higher levels of knowledge, explication or articulating the process and reflection on group process, and substantive learning and power relations and their transformation (Nastasi & DeZolt, 1994). Through the action research process, youth also learn measurable skills linked to K-12 learning priorities (social competencies, civic engagement, educational competencies, cognitive social intra-group competencies, and public communication skills (see Table 3).

The action research as service-learning process is transformative—that is, it is designed to reduce or eliminate differences resulting from racial, ethnic, age, education, role, and other disparities both at the individual and group level. It is also designed to encourage youth to work together and with adult facilitators and others to bring about changes in policies and practices that promote disparities.

Facilitators model these processes through their own relationships with each other and the youth, and in all guided research and associated action. They spend considerable time reflecting on their instructional techniques and the effect of instruction on individual youth and group relationships.

Conclusion

In the preceding comments we have shown that participatory action research, rooted in a transformative approach to anthropology, fosters critical thought and produces viable research skills that are transferable to other community social problems. The process is also system-transforming as it shifts from a dependency model of service ("I help you") to one of interdependence ("we help us") and toward critical analysis and political action (Ferrari & Jason, 1996; Schensul, Berg, & Sydlo, 2000). We have described how participatory action research as service-learning prioritizes the negotiation of power. Action research forefronts structuration (Giddens, 1991), a concept that promotes the identification of structural factors that affect individual lives and strategies that bring about changes at both levels. With PAR's focus on social justice, youth, with support from researchers/facilitators,

become the central change agents and the community becomes the stage for change.

Participatory action research as service-learning highlights critical thinking, research, awareness of power and privilege, reciprocal relations, and context, and the idea that research processes and results are simultaneously learning and community service. Conceptualizing participatory action research as service-learning was not part of the original conceptualization of our program. However, our professional links with service-learning researchers and activists illustrated the need for critical service-learning models, and more formalized skills-based curricula. We found that our youth-PAR approach to critical theory and methods could make contributions to the field of service-learning research, theory building, and methodology. Our contributions joined those of others in Learning In Deed, a program promoting the integration of service-learning in K-12 classrooms (Furco & Billig, 2002). These service-learning networks interface with authentic and experiential education centers, and with progressive educators attempting to revitalize and transform elementary and secondary education using service-learning as a lens.

This article intended to demonstrate how PAR, a form of practicing anthropology, contributes to service-learning by offering an explicit approach for linking a transformative research methodology to the notion of service as social change in a participatory democracy. Anthropology, no doubt, could bring other conceptual and theoretical resources to bear on service-learning-postmodern and critical notions of race, power, identity theory, critical relativism, interpretive meaning, etc. In mainstream service-learning, however, as in other domains such as prevention research and positive youth development, where cross-cultural differences as well as disparities should be highlighted and multilevel, multiethnic approaches to social change are considered, few anthropologists have entered the dialogue.

There are a number of possible explanations why anthropology and anthropologists do not seem to be visible in the growing field of service-learning (or the other fields previously mentioned). Perhaps it is because anthropology is primarily an intellectual discipline, less concerned with application and "service to communities," but, as explained above, we do not believe that is the case. There are too many examples of universities and colleges that have fostered anthropology in local and international communities. And as suggested earlier, many anthropologists are involved in various approaches to using research in the service of communities from university, nonprofit, service institution, and other kinds of organizational bases.

Perhaps it is because anthropologists are fiercely

loyal to our discipline and terminology, calling field schools or applied work "applied or action anthropology." Perhaps we do not conceptualize as "service" our efforts to integrate research with social improvements, policy change, or social transformations. These activities, often the result of research partnerships, are more often conceptualized as applied, collaborative, participatory, activist, advocacy or policy research, conducted in partnership with disenfranchised communities, for purposes of addressing disparities. The notion of service implies a very different frame of reference and set of relationships.

Anthropology is a research discipline. Ironically, at the undergraduate level, with the exception of field schools, most students do not learn field methods and do not engage in field research. There are some notable exceptions, but for the most part these programs do not involve anthropology departments. They also generally do not involve students in research, largely because faculty are not involved in local research sites and it is uncommon to teach research methods to undergraduates. There are exceptions, such as the work of Simonelli (2000; Simonelli & Roberts, 1998) and O'Donnell (2003), in which undergraduates are involved in politicallytransformative research with their mentors. A growing movement to involve students in undergraduate research may make a difference, but only if local organizations and/or faculty are interested in supervising and benefiting from the research "service" of undergraduate students. This movement, supported by an annual conference, has not yet attracted the attention of many anthropologists. Finally, for some time, the American Anthropological Association has paid attention to the teaching of anthropology, and a special interest organization meets regularly to discuss ways of improving teaching anthropology at all levels. But this orientation does not include field research for social transformation; instead, it focuses on how better to introduce core anthropological concepts and introduce students to cross cultural experiences. Methods instruction is not part of this dialogue.

In sum, the main explanations for the apparent disconnect between service-learning and anthropology include lack of attention to pedagogical theory and methodological instruction, especially in undergraduate anthropology, anthropologists' iconoclasm (at worst), and an emphasis on an advocacy rather than a service perspective in the field. This reluctance to claim the notion of service emerges clearly in the discourse with respect to PAR which is central to anthropological application. PAR is about sharing power, an empowerment process, reduction of disparities, and transformational change. PAR discourse is definitively

not about service in the traditional sense. Those searching for connections between anthropologicallydriven PAR and service-learning can find them under specific circumstances: when anthropologists want to improve their pedagogy, when they believe it is to their financial or ideological advantage to affiliate with a service-oriented movement, or if they are called upon to introduce structuralist critique into service-learning discourse and practice. The missing voice of anthropologists is a loss for service-learning given the need to critically deconstruct and transform service-learning so that "service" becomes knowledge in the service of activism. It is also a loss for anthropology given the need for innovative pedagogies that can train next-generation students for activist scholarship. This special issue, directed both to service-learning and anthropologically-driven participatory action research proponents, should help begin to remedy this dilemma.

Notes

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- ² For more detail on this process see Sydlo et al., 2000, and Schensul, Schensul & LeCompte, 1999.

References

- Aguilera, D. (1994, November 11). Service learning wows and woes: Service learning experts learning from communities. Paper presented at the American Educational Studies Association, Chapel Hill, North Carolina.
- Anderson, G. L. (1989). Critical ethnography in education: Origins: current status, and new directions. Review of Educational Research, 59(3), 249-270.
- Barger, K., & Reza, E. (1989). Policy and Community-Action Research. In A. McElroy (Ed.), Making our research useful: Case studies in the utilization of anthropological knowledge (pp. 257-283). Boulder, CO: Westview Press.

- Berg, M. J., & Owens, D. C. (2000). Empowered voices: A participatory action research curriculum for girls. Hartford, CT: The Institute for Community Research.
- Berg, M. J., Owens, D. C., & Schensul, J. J. (2002). Participatory action research, service-learning, and community youth development. CYD Journal: Community Youth Development, 3(2), 20-25.
- Berg, M. J., & Schensul, J. J. (Guest Editors). (2004). Approaches to conducting action research with youth. Practicing Anthropology, 26(2).
- Billig, S. H. (2000). Research on K-12 school-based servicelearning: The evidence builds. *Phi Delta Kappan*, 81(9), 658-664.
- Bonsall, D. L., Harris, R. A., & Marczak, J. N. (2002). The community as a classroom. *New Directions for Student Services*(100), 85-95.
- Bourdieu, P., & Passeron, J. C. (1977). Reproduction in education, society and culture. London: Sage Publications.
- Brigman, G., & Molina, B. (1999). Developing social interest and enhancing school success skills: A service learning approach. *Journal of Individual Psychology*, 55(3), 342-354.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development*. Cambridge MA: Harvard University Press.
- Bronfenbrenner, U., & Crouter, A. C. (1983). The evolution of environmental models in development research. In W. Kessen (Ed.), *History, theories, and methods: Handbook of child psychology*: (Vol. 1, pp. 39-83). New York: Wiley.
- Burns, L. T. (1998). Make sure it's service learning, not just community service. *The Education Digest*, 64(2), 38-41.
- Burrell, G. (1988). Modernism, postmodernism and organizational analysis 2: The contribution of Michel Foucault. *Organization Studies*, *9*(2), 221-235.
- Carver, R. L. (1997). Theoretical underpinnings of service learning. *Theory Into Practice*, 36(3), 143-149.
- Cushman, E. (1999). The public intellectual, service learning, and activist research. *College English*, 61(3), 328-336.
- Deetz, S. (1996). Describing differences in approaches to organization science: Rethinking Burrell and Morgan and their legacy. *Organization Science*, 7(2), 191-207.
- Dunlap, M. R. (1998). Methods of supporting students' critical reflection in courses incorporating service learning. *Teaching of Psychology*, 25(3), 208-210.
- Eyler, J. (2002). Reflection: Linking service and learninglinking students and communities. *Journal of Social Issues*, 58(3), 517-534.
- Fals Borda, O. (1979). Investigating reality in order to transform it: The Colombian experience. *Dialectical Anthropology*, 4, 33-55.
- Fals Borda, O., & Rahman, M. A. (1991). Action and knowledge: Breaking the monopoly with participatory action research. New York: Apex.

- Ferrari, J. R., & Jason, L. A. (1996). Integrating research and community service: Incorporating research skills into service learning experiences. *College Student Journal*, 30(4), 444-451.
- Foot Whyte, W. (1991). Participatory Action-Research. Newberry Park, CA: Sage Publications.
- Foucault, M. (1977). 'Truth and power'. In C. Gordon. (Ed.), Power/Knowledge: Selected interviews and other writings (pp. 109-133). New York: Pantheon.
- Foucault, M. (1982). Truth, power, self. In H. Hutton (Ed.), *Technologies of the self: A seminar with Michel Foucault* (pp. 9-15). London: Tavistock.
- Freire, P. (1981). Education for critical consciousness. New York: Continuum.
- Freire, P. (1998). Teachers as cultural workers. Letters to those who dare to teach. Boulder, CO: Westview Press.
- Freire, P. (Ed.). (1995). Pedagogy of hope: Reliving pedagogy of the oppressed. New York: Continuum.
- Freire, P., & Macedo, D. (1987). *Literacy: Reading the word and the world*. Westport: Bergin & Garvey.
- Furco, A., & Billig, S. H. (2002). Service-Learning: The essence of the pedagogy. Greenwich, CT: Information Age Publishing.
- Giddens, A. (1991). Structuration theory: Past, present, and future. In D. Jary (Ed.), Giddens' theory of structuration: A critical appreciation (pp. 201-221). London: Routledge.
- Gioia, D. A., & Pitre, E. (1990). Multiparadigm perspectives on theory building. Academy of Management Review, 15(4), 584-602.
- Giroux, H. A. (1983). Theory and resistance in education: A pedagogy for the opposition. South Hadley, MA: Bergin & Garvey.
- Gramsci, A., Hoare, Q., & Nowell-Smith, G. (1972). Selections from the prison notebooks of Antonio Gramsci (1 ed.). New York: International Publishers.
- Green, A. E. (2001). "But you aren't white:" Racial perceptions and service-learning. The Michigan Journal of Community Service Learning, 8(1).
- Greenwood, D. J., & Levin, M. (1998). Introduction to action research: Social research for social change. Thousand Oaks: Sage Publications.
- Hassard, J. (1991). Multiple paradigms and organizational analysis: A case study. *Organization Studies*, 12(2), 275-299.
- Hepburn, M. A. (1997). Service learning in civic education: A concept with long, sturdy roots. *Theory Into Practice*, 36(3), 136-142.
- Hooks, B. (1994). Teaching to transgress: Education as the practice of freedom. New York: Routledge.
- Hyatt, S. B. (2001). From citizen to volunteer: Neoliberal governance and the erasure of poverty. In J. Maskovsky (Ed.), *The new poverty studies: The ethnography of power, politics, and impoverished people in the United States* (pp. 201-235). New York: New York University Press.

- LeCompte, M. D., & Schensul, J. J. (1999). Designing & conducting ethnographic research. Walnut Creek, CA: AltaMira Press.
- Lewis, M. W., & Grimes, A. J. (1999). Metatriangulation: Building theory from multiple paradigms. Academy of Management Review, 24(4), 672-690.
- Masucci, M., & Renner, A. (2000). Reading the lives of others: The Winton Homes Library project A cultural studies analysis of critical service learning for education. *The High School Journal*, 84(1), 36-47.
- Morgan, W., & Streb, M. (2001). Building citizenship: How student voice in service-learning develops civic values. Social Science Quarterly, 82(1), 154-169.
- Nastasi, B. K., & Berg, M. J. (1999). Using ethnography to strengthen and evaluate intervention programs. In R. Glasser (Ed.), *Using ethnographic data: Interventions*, public programming and public policy (Vol. 7, pp. 1-56). Walnut Creek, CA: AltaMira Press.
- Nastasi, B. K., & DeZolt, D. M. (1994). School interventions for children of alcoholics. New York: The Guilford Press.
- O'Donnell, K. (2003). Rural teens and communities confront the roots of adolescent pregnancy: The promise of Project Reach. *Practicing Anthropology*, 25(4), 23-36.
- Park, P., Brydon-Miller, M., Hall, B., & Jackson, T. (1993).
 Voices of change: participatory research in the United States and Canada. Toronto: Ontario Institute for Studies in Education.
- Peattie, L. R. (1968). Reflections on advocacy planning. *Journal of the American Institute of Planners*, 34(2), 80-88.
- Pelto, P. J., & Pelto, G. H. (1978). Anthropological research: The structure of inquiry (2nd ed.). Cambridge: Cambridge Univ Press.
- Porpora, D. (1999). Action Research: The highest stage of service learning? In J. Ostrow, G. Hesser, & S. Enos (Eds.), Cultivating the sociological imagination: Concepts and models for service-learning in sociology (pp. 121-123). Washington, DC: American Association for Higher Education.
- Porter, M., & Monard, K. (2001). Ayni in the global village: Building relationships of reciprocity through international service-learning. *The Michigan Journal of Community Service Learning*, 8(1).
- Pritchard, I. (2002). Community service and service-learning in America: The state of the art. In S. H. Billig (Ed.), Service-Learning: The essence of the pedagogy (pp. 1-21). Greenwich, CT: Information Age Publishing.
- Rhoads, R. A. (1997). Community service and higher learning: Explorations of the caring self. Albany: State University of New York Press.
- Schensul, J. J. (1998). Community-based risk prevention with urban youth. School Psychology Review, 27(2), 233-245.
- Schensul, J. J. (1998-99). Learning about sexual meaning and decision-making from urban adolescents. International *Quartlery of Community Health Education*, 18(1), 29-48.

- Schensul, J. J. (2001). Strengthening communities through action research. Paper presented at the Society for Applied Anthropology meeting, Merida, Yucatan.
- Schensul, J. J. (2004). Core elements of participatory action research for educational empowerment and risk prevention with urban youth. *Practicing Anthropology*, 26(2).
- Schensul, J. J., Berg, M. J., & Brase, M. (2002). Theories guiding outcomes for action research for service-learning. In S. H. Billig (Ed.), Service-Learning: The essence of the pedagogy (pp. 125-143). Greenwich, CT: Information Age Publishing.
- Schensul, J. J., Berg, M. J., & Sydlo, S. (2000). Community based action research training as intervention in urban communities. Paper presented at the Annual Meeting of the Society for Applied Anthropology, Seattle, WA.
- Schensul, S. L., & Schensul, J. J. (1978). Advocacy and applied anthropology. In G. J. McCall (Ed.), Social scientists as advocates: Views from the applied disciplines (pp. 121-165). Newbury Park, CA: Sage Publications.
- Schensul, J. J., & Schensul, S. L. (1992). Collaborative research: Methods of inquiry for social change. In J. Goetz & M. Le Compte (Eds.), *The handbook of qualita*tive research methods in education (pp. 161-200). New York: Academic Press.
- Schumer, R. (2002). Service learning as qualitative research. In S. H. Billig (Ed.), Service-Learning: The essence of the pedagogy (pp. 183-200). Greenwich, CT: Information Age Publishing.
- Schumer, R., Burkas, T., & Murphy, N. (1992). *Describing* service-learning: A Delphi study. University of Minnesota, Minneapolis.
- Simonelli, J. (2000). Field school in Chiapas. *Qualitative Inquiry*, 6(1), 104-106.
- Simonelli, J., & Roberts, B. (1998). Connecting classroom with community: Service and professional socialization in applied programs for undergraduates. *Practicing Anthropology*, 20(4).
- Singer, M. (1994). Community-centered praxis: Toward an alternative non-dominative applied anthropology. *Human Organization*, *53*(4), 336-344.
- Singer, M. Ed. (2003). The Hispanic Health Council: An experiment in applied anthropology. *Practicing Anthropology*, 25(3)
- Stringer, E. T. (1996). Action research: A handbook for practitioners. Thousand Oaks, CA: Sage Publications.
- Stull, D., & Schensul, J. (1987). Collaborative research and social change: Applied anthropology in action. Boulder, CO: Westview Press.
- Sydlo, S., Schensul, J. J., Schensul, D., Berg, M. J., Wiley, K., Schensul, S., et al. (2000). Participatory action research: A curriculum for empowering youth. Hartford, CT: Institute for Community Research.
- Takacs, D. (2003). How does your positionality bias your epistemology? *Thought & Action Journal*, *19*(1), 27-38.
- Tax, S. (1958). The Fox Project. *Human Organization*, 17, 17-19.

- Taylor, E., Tisdell, E. J., & Hanley, M. S. (2000). The role of positionality in teaching for critical conciousness: Implications for adult education. Paper presented at the 41st Annual Adult Education Research Conference, Vancouver, University of British Columbia.
- Toole, J. C. (2002). Civil society, social trust, and the implementation of service-learning. In S. H. Billig (Ed.), Service-Learning: The essence of the pedagogy (pp. 53-82). Greenwich, CT: Information Age Publishing.
- van Willigen, J. (1993). *Applied anthropology: An introduction*. Westport, CT: Bergin & Garvey.
- Varlotta, L. E. (1997). Confronting consensus: Investigating the philosophies that have informed service-learning communities. *Educational Theory*, 47(4), 453-476.
- Ward, K., & Wolf-Wendel, L. (2000). Community-centered service learning. *American Behavioral Scientist*, 43(5), 767-780.

Authors

JEAN J. SCHENSUL, a medical anthropologist, is founder and executive director of the Institute for Community Research, an independent non-profit research organization based in Hartford, Connecticut, and conducting CBR in Connecticut, the northeastern and midwestern U.S., India, China, and Spain. Dr. Schensul has been involved in interventions that involve youth and adults in PAR for social change since 1988. Recent publications include the 7 volume Ethnographer's Toolkit (Schensul & LeCompte, Altamira Press, 1999), and articles on community-based research, service-learning, and adolescent health. She is a former president of the Council on Anthropology and Education and the Society for Applied Anthropology, and a member of AAA/SfAA Commission on Applied and Practicing Anthropology.

MARLENE BERG is one of the co-founders of the Institute for Community Research and is ICR Associate Director for Training, responsible for directing PAR and other intervention demonstration projects at ICR. With a background in ethnographic methods, she has more than 25 years of experience in participatory qualitative and quantitative research with youth, adults, women, and advocacy organizations and in the provision of technical assistance and training to the nonprofit sector. Since 1994, she has directed federally-funded projects testing the efficacy of youth-PAR for prevention and youth development with pre-adolescent girls and adolescent high school students, and has published on these projects. She is also responsible for facilitating service-learning experiences for undergraduate and graduate social science and masters-level public health students in critical youth-PAR and adult-PAR interventions and has presented at national service-learning conferences.